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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Redevelopment of Spectrum to) ET Docket No. 92-9
Encourage Innovation in the)
Use of New Telecommunications) RM-7981
Technologies) RM-8004

COMMENTS
OF THE
UNITED STATES TELEPHONE ASSOCIATION

The United States Telephone Association (USTA) respectfully submits its comments in the above-referenced proceeding. USTA is the principal trade association of the exchange carrier industry. Its membership provides over 98 percent of the exchange carrier-provided access lines in the U. S. Some of USTA's member companies currently utilize the 2 GHz frequency band to provide service. USTA's member companies are also interested in offering new wireless personal communications services (PCS) in that portion of the 2 GHz band which the Commission will allocate for PCS. Therefore, USTA's member companies will be affected by the channelization plans at issue in this proceeding.

In the Further Notice of Proposed Rulemaking released September 4, 1992, the Commission is proposing to reallocate five bands above 3 GHz to private and common carrier fixed microwave use on a co-primary basis and to prescribe additional technical standards to govern use of these bands. USTA supports the Commission's effort to adopt channelization plans for the upper

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bands that will accommodate both narrowband and wideband systems. Uncontrolled relocation of narrowband systems to the upper bands will not ensure optimal use of the spectrum to be made available pursuant to this proceeding. In developing the necessary channelization plans, the Commission should focus on encouraging the most efficient utilization of spectrum. This must include the grandfathering of frequency plans to ensure optimal frequency utilization.

1. 4 GHz Rechannelization.

Given the proliferation of 4 GHz satellite down links, the use of 4 GHz frequencies may be severely restricted on all channels except those growth channels that have been secured through the prior coordination process. Because of such constraints, the 4 GHz band may prove to be less attractive to relocated 2 GHz licensees.

The proposed 4 GHz frequency plan seeks to designate separate blocks of spectrum for transmit and receive frequencies. This would be consistent with other common carrier bands, as opposed to the existing plan which interleaves transmit and receive frequencies. USTA supports the proposed plan. However, as noted above, transitioning to the new plan may only be possible in areas that are currently void of any 4 GHz point-to-point licensees. A station licensed under the new plan, transmitting on the upper or lower half of the band, could

potentially interfere with receivers on both ends of a victim path. This could double the number of potential interfering and interfered stations which must be analyzed and cleared. In addition, many paths have outstanding prior coordinations that identify growth frequencies on licensed paths. Grandfathering established growth plans may be necessary to avoid interference created by the proposed frequency changes in areas where there are 4 GHz licensees operating on the existing plan.

2. 6 GHz Rechannelization.

The proposed 6 GHz rechannelization plan specifies a 30 MHz bandwidth as opposed to the existing 29.65 MHz bandwidth. While this change will accommodate narrowband and wideband channels, it will also present significant challenges. The frequency offset of the new channels varies from 200 kHz to 2.2 MHz. This variation will create a carrier beat interference potential between analog systems, particularly in congested areas. The current ratio between analog and digital systems is approximately 4 to 1 for the private sector and is approximately 1 to 4 for common carriers. Private systems are primarily narrowband. The carrier beat interference potential will be affected not only by the change in the 30 MHz center frequencies, but also by the additional narrowband channels which have been interleaved with the wideband slots. Many systems close to established routes may require the use of currently established growth plans. Thus, grandfathering current frequency growth plans may be necessary.

USTA recommends that the Commission encourage potential 6 GHz analog licensees to use the upper portion (6525-6875 MHz) of the band which is currently allocated for narrowband use, particularly if the system requires 10 MHz or less of bandwidth. This will preserve the integrity of the remainder of the 6 GHz band for common carrier use, which is primarily wideband. Analog systems with bandwidths greater than 10 MHz should be encouraged to adhere to the proposed channel plan where feasible. Licensing based on the existing plan should be permitted in other instances. In addition, systems with bandwidths of 10 MHz or less should also be required, initially, to use frequencies currently allocated for narrowband systems. If channel availability precluded narrowband use of the upper 6 GHz frequencies, the lower portion of the band could be utilized, as outlined in the proposed rechannelization plan. Grouping like systems will promote spectrum efficiency and ease coordination.

3. 11 GHz Rechannelization.

The proposed 11 GHz rechannelization plan decreases the bandwidth from 40 MHz to 30 MHz. This plan promotes spectrum efficiency, yet may be technically feasible only for new routes. The Commission should allow, therefore, for the grandfathering of frequency plans currently in place. Channel additions may be difficult, if not impossible, on some routes unless grandfathering is permitted. Growth plans should continue to be coordinated and harmonized to promote spectrum efficiency.

4. Access to Government Spectrum.

USTA agrees with the Commission that this proceeding should not be delayed pending negotiations with the National Telecommunications and Information Administration for access by non-government licensees to the 1.71 to 1.85 GHz government band. However, USTA urges the Commission to continue to vigorously pursue this issue and to make every effort to obtain access to adjacent government bands.

The technical characteristics of the government band adjacent to the bands to be allocated for emerging technologies are almost identical. Therefore, relocation to these government bands is not only appropriate, but desirable. Only minor engineering changes in equipment design would be required to relocate to those bands. Access to government spectrum would increase the amount of spectrum available for either current or emerging radio-based service and is imperative to accommodate future growth in the demand for wireless services.

5. Coordination Procedures.

Common carriers secure future growth channels through the prior coordination process. This process has proved to be invaluable for establishing long range growth plans, particularly in frequency congested areas. This procedure has also assisted in eliminating potential interference.

Under the Commission's Part 94 rules, private microwave licensees are not required to coordinate frequency use. Instead, they are required to perform interference studies to determine if a proposed system could potentially cause interference to other systems. Private microwave applications must include a showing of the stations and call signs included in the study. Private microwave data bases are updated only after a filing appears on public notice. Under this process, path data information is updated only after a filing appears on public notice.

Common carrier data base information is updated immediately upon receipt of the prior coordination notice. Thus, common carriers can avoid the possibility of developing a system which parallels another system without prior knowledge of the possible interference conflicts. Potential problems can be identified and eliminated prior to the engineering and filing period. This has facilitated system planning and has permitted economical system deployment. Likewise, the Commission has been spared numerous "petitions to deny" that would have resulted if conflicts had not been identified in advance.

The Commission proposes to establish common carrier coordination procedures for all the shared bands except the upper 6 GHz band (6525-6875 MHz), which is currently limited to private use. Rather than maintaining two sets of rules, the Commission should adopt consistent coordination procedures. Without such

rules the upper 6 GHz band could potentially become a haven for licensees who choose the upper 6 GHz band to avoid the 30 day notification period. The Commission should adopt the common carrier prior coordination procedures for all bands.

6. Interference Objectives.

USTA recognizes the need for the swift development of interference standards governing equipment and frequency separation combinations. The Telecommunications Industry Association working group (TIA 14.11) as well as the National Spectrum Managers Association are currently addressing these issues. These processes are open to all users and manufacturers. The Commission should encourage these groups to continue their efforts.

7. Antenna Standards.

USTA supports the development of uniform antenna standards in all frequency bands for both common carrier and private microwave users. Allowing licensees to utilize Category B antennas could lead to further congestion and require new entrants to coordinate around systems with sub-standard antenna systems. The Commission should update and improve the Category A standards for use by all carriers. This will maximize spectrum efficiency and permit full usage of available frequency bands.

8. Automatic Transmit Power Control.

USTA agrees that automatic transmit power control (ATPC) should be permitted under both Part 21 and Part 94 of the Commission's rules. However, USTA believes that a uniform rule should incorporate the current standards for common carriers. Maximum transmit power should not be exceeded under any circumstance. Established industry bodies should be permitted to establish the appropriate procedures to be used in dealing with ATPC systems during interference analysis.

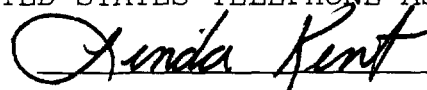
9. Conclusion.

USTA urges the Commission to adopt channelization plans and technical standards consistent with the recommendations contained in these comments.

Respectfully submitted,

UNITED STATES TELEPHONE ASSOCIATION

By



Martin T. McCue
General Counsel

Linda Kent
Associate General Counsel

900 19th Street, NW, Suite 800
Washington, D.C. 20006-2105
(202) 835-3100

December 10, 1992

CERTIFICATE OF SERVICE

I, Stephanie Kantor, do certify that on December 10, 1992 copies of the foregoing comments of the United States Telephone Association were either hand-delivered, or deposited in the U.S. Mail, first-class, postage prepaid to the persons on the attached service list.


Stephanie Kantor

Benn Kobb
Wireless Information Networks
Forum
1155 Connecticut Avenue, NW
Suite 500
Washington, DC 20036

Chandos A. Rypinski
Lace, Inc.
921 Transport Way
Petaluma, CA 94954

Steven R. Rivkin
Law Offices of Steven R.
Rivkin
1401 New York Avenue, NW
Suite 1200
Washington, DC 20005

James F. Rogers
Gregory P. Broome
Latham & Watkins
1001 Pennsylvania Avenue, NW
Suite 1300
Washington, DC 20005

Jeffrey L. Sheldon
Mara J. Primosch
Utilities Telecommunications
Council
1140 Connecticut Avenue, NW
Suite 1140
Washington, DC 20036

Sean A. Stokes
Utilities Telecommunications
Council
1140 Connecticut Avenue, NW
Suite 1140
Washington, DC 20036

John D. Lane
Robert M. Gurss
Wilkes, Artis, Hedrick & Lane,
Chartered
1666 K Street, NW
Washington, DC 20006

Dr. Michael C. Trahos
Steve H. Souder
4600 King Street
Suite 4E/5N
Alexandria, VA 22302

Lawrence A. Gollomp
U.S. Department of Energy
1000 Independence Avenue, SW
DOE Mail Stop GC-33
Room 6D--033
Washington, DC 20585

Kevin Kelly
U.S. Department of Energy
1000 Independence Avenue, SW
DOE Mail Stop EP (PE-51)
Room 7H-075
Washington, DC 20585

William F. Adler
Pacific Telesis
1275 Pennsylvania Avenue, NW
Suite 400
Washington, DC 20004

Coleman Conrad
The City of San Diego
City Administration Building
202 C Street
San Diego, CA 92101

J. Barclay Jones
American Personal Comms.
1025 Connecticut Avenue, NW
Washington, DC 20036

Jonathan D. Blake
Kurt A. Wimmer
Ellen K. Snyder
Covington & Burling
1201 Pennsylvania Ave., NW
P.O. Box 7566
Washington, DC 20044

Jerome K. Blask
Coleen M. Egan
Gurman, Kurtis, Blask &
Freedman, Chartered
1400 16th Street, NW
Suite 500
Washington, DC 20036

Walter H. Sonnenfeldt
Walter Sonnenfeldt & Associates
1600 Wilson Blvd.
Suite 500
Arlington, VA 22209

Richard M. Stokes
Atlantic Electric
1199 Black Horse Pike
Pleasantville, NJ 08223

Lawrence L. Green
Department of Water and Power
The City of Los Angeles
P.O. Box 111
Los Angeles, CA 90051-0100

M.J. MacDonald
Seattle City Light
1015 Third Avenue
Seattle, WA 98101

Don O. Tellis
Arizona Public Service Co.
P.O. Box 53999
Phoenix, AZ 85072

T. Peter Ruane
American Road &
Transportation Builders
501 School Street, SW
Eighth Floor
Washington, DC 20024

William B. Barfield
BellSouth Corporation
1155 Peachtree Street, NE
Suite 1800
Atlanta, GA 30367

Lew Morris
CYLINK Corporation
310 N. Mary Avenue
Sunnyvale, CA 94086

John McNulty
Rose Communications, Inc.
2390 Walsh Avenue
Santa Clara, CA 95051

James D. Ellis
William J. Free
Southwestern Bell Corp.
One Bell Center
Room 3542
St. Louis, MO 63101

Mark P. Royer
Southwestern Bell Corp.
One Bell Center
Room 3542
St. Louis, MO 63101

Robert S. Foosaner
Lawrence R. Krevor
Fleet Call, Inc.
1450 G Street, NW
Washington, DC 20036

Bruce D. Jacobs
Glenn S. Richards
Fisher, Wayland, Cooper &
Leader
1255 23rd Street, NW-Ste.800
Washington, DC 20037

Gregory L. Masters
Fisher, Wayland, Cooper &
Leader
1255 23rd Street, NW
Suite 800
Washington, DC 20037

Lon C. Levin
American Mobile Satellite Corp.
1150 Connecticut Avenue, NW
Washington, DC 20036

Harold R. Morrison
Valero Transmission Co.
P.O. Box 500
San Antonio, TX 78292

H. Mark Gibson
Comsearch
11720 Sunrise Valley Drive
Reston, VA 22091

Thomas Ohlsson
Spectralink Corp.
1650 38th Street
Boulder, CO 80301

Robert B. Kelly
Advanced Mobilecomm, Inc.
1920 N Street, NW
Suite 660
Washington, DC 20036

Paul J. Sinderbrand
Dawn G. Alexander
Keck, Mahin & Cate
1201 New York Avenue, NW
Penthouse
Washington, DC 20005

Tel/Logic Inc.
51 Shore Drive
Plandome, NY 11030

Paul Taft
Taft Broadcasting Co.
4808 San Felipe Road
Houston, TX 77056

William D. Balthrope
Texas Wired Music, Inc.
P.O. Box 8278
San Antonio, TX 78208

Robert J. Miller
Gardere & Wynne, LLP
1601 Elm Street
Suite 3000
Dallas, TX 75201

Wayne V. Black
Christine M. Gill
Keller and Heckman
1001 G Street, NW
Suite 500 West
Washington, DC 20001

Frederick J. Day
Keller and Heckman
1001 G Street, NW
Suite 500 West
Washington, DC 20001

Marc Berejka
Rick D. Rhodes
Keller and Heckman
1001 G Street, NW
Suite 500 West
Washington, DC 20001

Tamara Y. Davis
Keller and Heckman
1001 G Street, NW
Suite 500 West
Washington, DC 20001

Leonard Robert Raish
George Petrutsas
Fletcher, Heald & Hildreth
1225 Connecticut Avenue, NW
Suite 400
Washington, DC 20036

Barry Lambergman
Fletcher, Heald & Hildreth
1225 Connecticut Avenue, NW
Suite 400
Washington, DC 20036

Jeffrey L. Clarke
American Gas Association
1515 Wilson Boulevard
Arlington, VA 22209

Thomas J. Keller
Erwin G. Krasnow
Verner, Liipfert, Bernhard,
McPherson and Hand, Chtd.
901 15th Street, NW-Ste.700
Washington, DC 20005

Jan J. Sgett
Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, DC 20004

Henry M. Rivera
Larry S. Solomon
Ginsburg, Feldman & Bress,
Chtd.
1250 Connecticut Avenue, NW
Washington, DC 20036

David C. Jatlow
Young & Jatlow
2300 N Street, NW
Suite 600
Washington, DC 20037

George M. Kizer
Eric J. Schimmel
Telecommunications Ind.Assn.
2001 Pennsylvania Avenue, NW
Suite 800
Washington, DC 20006

Sambran Sandoval
National Spectrum Managers
Association, Inc.
P.O. Box 8378
Denver, CO 80201

Thomas Guterrez
David A. LaFuria
Lukas, McGowan, Nace &
Guterrez, Chtd.
1819 H Street, NW
7th Floor
Washington, DC 20006

Michael Altschul
Jack W. Whitley
Cellular Telecomm. Ind. Assn.
1133 21st Street, NW
Suite 300
Washington, DC 20036

Daniel E. Smith
Gurman, Kurtis, Blask
and Freedman, Chtd.
1400 16th Street, NW
Suite 500
Washington, DC 20036

James F. Lovette
Apple Computer, Inc.
20525 Mariani Avenue
M.S. 76-2H
Cupertino, CA 95014

Henry Goldberg
Goldberg & Spector
1229 19th Street, NW
Washington, DC 20036

Brice L. Clark
Hewlett-Packard Co.
8000 Foothills Blvd.
Roseville, CA 95678

Lisa M. Zaina
OPASTCO
21 Dupont Circle
Suite 700
Washington, DC 20036

Josephine S. Trubek
Rochester Telephone Corp.
180 South Clinton Avenue
Rochester, NY 14646

David Cosson
L. Marie Guillory
NTCA
2626 Pennsylvania Avenue, NW
Washington, DC 20037

Arthur Blooston
John A. Prendergast
Blooston, Mordkofsky, Jackson
and Dickens
2120 L Street, NW-Ste.300
Washington, DC 20037

Harold Mordkofsky
Robert M. Jackson
Blooston, Mordkofsky, Jackson
and Dickens
2120 L Street, NW
Suite 300
Washington, DC 20037

Lawrence E. Sarjeant
Randall S. Coleman
U S West
1020 19th Street, NW
Suite 700
Washington, DC 20036

JoAnne G. Bloom
Ameritech
30 South Wacker Drive
Suite 3900
Chicago, IL 60606

Ellen S. Deutsch
Citizens Utilities Co. of
California
P.O. Box 496020
Redding, CA 96049

Daniel L. Bart
GTE
1850 M Street, NW
Suite 1200
Washington, DC 20036

George Y. Wheeler
Koteen & Naftalin
1150 Connecticut Avenue, NW
Washington, DC 20036

Charles F. Wright
Centel Corporation
8725 Higgins Road
Chicago, IL 60631

Edward E. Jungerman
Impulse Telecomm. Corp.
12720 Hillcrest Road
Suite 1020
Dallas, TX 75230

Dennis R. Patrick
Lisa A. Hook
Time Warner Telecom., Inc.
1776 Eye Street, NW
Suite 850
Washington, DC 20006

Tom W. Davidson
Margaret L. Tobey
Akin, Gump, Hauer & Feld,
LLP
1333 New Hampshire Ave., NW
Suite 400
Washington, DC 20036

Diane Conley
Akin, Gump, Hauer & Feld,
LLP
1333 New Hampshire Ave., NW
Suite 400
Washington, DC 20036

Mary E. Landergan
Capital Cities/ABC, Inc.
77 West 66 Street
New York, NY 10023

Louis Libin
National Broadcasting Co., Inc.
30 Rockefeller Plaza
Room 1600W
New York, NY 10112

Stephan R. Carrier
Hughes Network Systems, Inc.
11717 Exploration Lane
Germantown, MD 20874

Jeffrey Krauss
Consultant
17 West Jefferson Street
Suite 106
Rockville, MD 20850

Richard Farquhar
Dane E. Ericksen
Booth, Freret & Imlay
1233 20th Street, NW
Suite 204
Washington, DC 20036

Christopher D. Imlay
Booth, Freret & Imlay
1233 20th Street, NW
Suite 204
Washington, DC 20036

Gregory M. Schmidt
Daniel S. Goldberg
Covington & Burling
1201 Pennsylvania Ave., NW
P.O. Box 7566
Washington, DC 20044

Gregory M. Schmidt
Daniel S. Goldberg
Covington & Burling
1201 Pennsylvania Avenue, NW
P.O. Box 7566
Washington, DC 20044

Julian L. Shepard
Association for Maximum
Service Television, Inc.
1400 16th Street, NW
Suite 610
Washington, DC 20036

Victor Tawil
Association for Maximum
Service Television, Inc.
1400 16th Street, NW
Suite 610
Washington, DC 20036

Andrew D. Lipman
Shelley L. Spencer
Margaret M. Charles
Swidler & Berlin, Chtd.
3000 K Street, NW
Suite 300
Washington, DC 20007

Terry G. Mahn
Fish & Richardson
601 13th Street, NW
5th Floor North
Washington, DC 20005

George Calhoun
International Mobile Machines
Corporation
2200 Renaissance Blvd.
Suite 105
King of Prussia, PA 19406

Steven Sivitz
ROLM
4900 Old Ironsides Drive
Santa Clara, CA 95052

Thomas J. Sugrue
William F. Maher
National Telecommunications
and Information Admin.
14th & Constitution Ave., NW
Room 4713
Washington, DC 20230

Joseph L. Gattuso
National Telecommunications
and Information Admin.
14th & Constitution Ave., NW
Room 4713
Washington, DC 20230

Phyllis E. Hartsock
Mindel De La Torre
National Telecommunications
and Information Admin.
14th & Constitution Ave., NW
Room 4713
Washington, DC 20230

Eric Schimmel
John Major
Telecommunications Industry
Association
2001 Pennsylvania Avenue, NW
Suite 800
Washington, DC 20006

Robert B. Kelly
Advanced MobileComm, Inc.
1920 N Street, NW
Suite 660
Washington, DC 20036

Mark R. Hamilton
Scott K. Morris
Cathleen A. Massey
McCaw Cellular Comm., Inc.
1250 Connecticut Ave., NW
Suite 401
Washington, DC 20036

A. Laurence Ralph
Central Maine Power Co.
Edison Drive
Augusta, ME 04336

G. Patrick Flowers
Sherrie N. Rutherford
Houston Pipe Line Co.
Northern Border Pipeline
Co.
P.O. Box 1188
Houston, TX 77252

Arthur K. Neill
The Montana Power Co.
Utility Services
40 East Broadway
Butte, MT 59701

Bob Bergland
National Rural Electric
Cooperative Assn.
1800 Massachusetts Ave., NW
Washington, DC 20036

D.W. Bateman
Salt River Project
P.O. Box 52025
Phoenix, AZ 85072

Shirley S. Fujimoto
Brian T. Ashby
Keller and Heckman
1001 G Street, NW
Suite 500 West
Washington, DC 20001

L. Christian Hauck
Sunflower Electric Power Co.
P.O. Box 980
Hays, KS 67601

William K. Drummond
Public Power Council
500 N.E. Multnomah
Suite 729
Portland, OR 97232

American Public Power Assn.
2301 M Street, NW
Suite 300
Washington, DC 20037

Carole C. Harris
Rick D. Rhodes
Keller and Heckman
1001 G Street, NW
Suite 500 West
Washington, DC 20001

Amy Bondurant
Lawrence R. Sidman
Verner, Liipfert, Bernhard,
McPherson and Hand, Chtd.
901 15th Street, NW
Suite 700
Washington, DC 20005

Jacqueline R. Kinney
Verner, Liipfert, Bernhard,
McPherson and Hand, Chtd.
901 15th Street, NW
Suite 700
Washington, DC 20005

Mark W. Johnson
Michael Rose
CBS Inc.
51 West 52 Street
New York, NY 10019

Henry L. Baumann
Barry D. Umansky
National Assn. of Broadcasting
1771 N Street, NW
Washington, DC 20036

Radio-Television News
Directors Association
1000 Connecticut Avenue, NW
Washington, DC 20036

J. Laurent Scharff
Reed, Smith, Shaw & McClay
1200 18th Street, NW
Washington, DC 20036

Bruce Collins
Cable-Satellite Public Affairs
Network
400 North Capitol Street, NW
Suite 650
Washington, DC 20001

Werner K. Hartenberger
Laura H. Phillips
Dow, Lohnes & Albertson
1255 23rd Street, NW
Suite 500
Washington, DC 20037

Thomas J. Casey
Jay L. Birnbaum
Simone Wu
Skadden, Arps, Slate,
Meagher & Flom
1440 New York Avenue, NW
Washington, DC 20005

George W. Toyne
Corn Belt Power Cooperative
1300 13th Street North
P.O. Box 508
Humboldt, IA 50548

Herbert D. Coss, Jr.
Baltimore Gas and Electric Co.
Lexington and Liberty Streets
P.O. Box 1475
Baltimore, MD 21203

Theodore L. Kinne
Interstate Natural Gas
Association of America
555 13th Street, NW
Suite 300 W
Washington, DC 20004

Nicholas W. Hetman
Texas Gas Transmission Corp.
3800 Frederica Street
Owensboro, KY 42301

Byron R. Bergman
Tacoma Public Utilities
3628 South 35th Street
P.O. Box 11007
Tacoma, WA 98411

George Shannon
Tarrant County Water Control
and Improvement District
Number One
P.O. Box 4508
Fort Worth, TX 76164

Donald F. McCarthy
Consolidated Edison Co. of
New York, Inc.
4 Irving Place
New York, NY 10003

Daymon G. Barton
KAMO Electric Coop., Inc.
P.O. Box 577
Vinita, OK 74301

Dick Heineman
Board of Public Utilities
Incorporated County of LA
P.O. Box 1057
Los Alamos, NM 87544

J. Michael Peters
Western Resources, Inc.
818 Kansas Avenue
Topeka, KS 66601

Frederick J. Day
Keller and Heckman
1001 G Street, NW
Suite 500 West
Washington, DC 20001

Harry D. Mattison
Central and South West, Inc.
1616 Woodall Rodgers Fwy.
Dallas, TX 75202

Richard H. Bremer
Southwestern Electric Power
Co.
428 Travis Street
Shreveport, LA 71101

Associated Builders Contractors
729 15th Street, NW
Washington, DC 20005

Robert R. Carey
Central Power and Light Co.
539 North Carancahua Street
Corpus Christi, TX 78401

Harry A. Haycock
PacifiCorp.
2300 One Utah Center
Salt Lake City, UT 84140

Donald L. Schiling
SCS Mobilecom, Inc.
85 Old Shore Road
Suite 200
Port Washington, NY 11050

Raymond G. Bender, Jr.
Michael D. Basile
Dow, Lohnes & Albertson
1255 23rd Street, NW
Suite 500
Washington, DC 20037

Thomas Gutierrez
Lukas, McGowan, Nace &
Gutierrez, Chtd.
1819 H Street, NW
7th Floor
Washington, DC 20006

John P. Bankson, Jr.
Joe D. Edge
Hopkins & Sutter
888 16th Street, NW
Washington, DC 20006

Edward R. Wholl
Katherine S. Abrams
NYNEX Mobile Comm. Co.
2000 Corporate Drive
Orangeburg, NY 10962

Thomas A. Stroup
Telocator
1019 19th Street, NW
Suite 1100
Washington, DC 20036

Richard D. Lawson
U.S. Sprint
1850 M Street, NW
11th Floor
Washington, DC 20036

Francine J. Berry
David P. Condit
Sandra W. Smith
AT&T
295 North Maple Avenue
Room 3224J1
Basking Ridge, NJ 07920

Douglas Smith
Omnipoint Corp.
7150 Campus Drive
Colorado Springs, CO 80920

Richard Brass
Oracle Data Publishing, Inc.
500 108th Avenue, NE
Suite 1750
Bellvue, WA 98004

Tom Alberg
McCaw Cellular Comm., Inc.
5400 Carillon Point
Kirkland, WA 98033

Michael D. Kennedy
Stuart E. Overby
Motorola, Inc.
1350 I Street, NW
Suite 400
Washington, DC 20005

Donald C. Loughry
Hewlett-Packard Co.
19420 Homestead Road
M/S 43UC
Cupertino, CA 95014

David R. Mason
MCI Telecommunications Corp.
400 International Parkway
Richardson, TX 75081

Albert Halprin
Stephen L. Goodman
Halprin, Mendelsohn &
Goodman
1301 K Street, NW
Suite 1020, East Tower
Washington, DC 20005

John G. Lamb, Jr.
Northern Telecom Inc.
2221 Lakeside Boulevard
Richardson, TX 75082

Randolph J. May
Timothy J. Cooney
Sutherland, Asbill & Brennan
1275 Pennsylvania Avenue, NW
Washington, DC 20004

Cheryl Lynn Schneider
Communications Satellite Corp.
950 L'Enfant Plaza, SW
Washington, DC 20554

Richard Rubin
Fleischman and Walsh
1400 16th Street, NW
Suite 600
Washington, DC 20036

Stephen Ruud
PUC of Colorado
Logan Tower, OL-2
1580 Logan Street
Denver, CO 80203

Howard Oringer
Telesciences, Inc.
600 Montgomery Street
San Francisco, CA 94111

Downtowny Copy Center
1114 21st Street, NW
Washington, DC 20036

Vicki Mason
Telecommunications Reports
1333 H Street, NW
11th Floor, West Tower
Washington, DC 20005